

Obesity in New Zealand children: a weighty issue

Rachael W Taylor

At present, childhood obesity is undoubtedly a hot topic in both the medical and lay media. Recent announcements of government initiatives, including the food and beverage classification system and new national administration guidelines for food and nutrition in schools, have caused a flurry of interest and analysis, much of it negative. However, obesity *is* an issue for New Zealand children; with 1 in 10 youngsters aged 5 to 14 years considered to be obese, and a further 20% classified as overweight. The latter statistic may be regarded as even more alarming, because if suitable intervention does not occur then these children are likely to progress to an obese state at some time in the future.

A viewpoint article¹ by Grant and Bassin in this issue of the *Journal* suggests that action needs to go beyond school-based approaches and that more than just simple rhetoric is required if we are to truly address this multinational issue in our small corner of the world.

While resolution of some important controversies is important, we must make sure that such controversies do not impede progress. In childhood obesity, one of the main areas of controversy centres around the use of body mass index (BMI) as an index of body composition in children.

As highlighted in the featured article,¹ some are concerned that BMI is essentially too crude a measure for the diagnosis of such an important condition, particularly in relation to ethnicity, sex differences, and more active children. It is unfortunate that such misperceptions surrounding BMI are so widely held. It is true that a particular BMI value cannot give a precise measure of body fat in an individual, but neither will bioimpedance which is often promoted as a superior technique.²

Cut-off values for BMI describe levels at which health risks become more apparent. Obviously, not every person with a high BMI will develop diabetes, dyslipidaemia, or high blood pressure, but their risks are far greater than those with lower levels of BMI. Studies in our laboratory³ and internationally⁴ clearly show that BMI cut-offs commonly in use^{5,6} correctly discriminate between children (3–18 years of age) with low and high levels of body fat as measured by dual-energy X-ray absorptiometry (the ‘gold standard’ for measuring body composition) more than 90% of the time.

Moreover, BMI cut-offs perform just as well in both sexes and in children⁴ and adults⁷ from different ethnic groups. And yes, the odd very athletic child might be misclassified as being overweight when they are not overfat. However, those who criticise the use of BMI on these grounds appear to overlook the fact that such children (and adults) are few and far between in the population and they are generally easy to identify. Furthermore, although it has been suggested clinically that use of a skinfold thickness in addition to BMI will discriminate such children,⁸ in practice, BMI already performs so well that such additions are unnecessary.⁴

Grant and Bassin¹ are correct in stating that more action is urgently required and that schools are not the only place where intervention is appropriate. However, it is clear that intervening in the school environment can result in positive outcomes. Our own community-based obesity prevention initiative, the *APPLE project*, showed that a

relatively simple intervention (addition of physical activity coordinators in schools and basic nutrition education) can significantly reduce the rate of excessive weight gain in primary-school-aged children. More importantly perhaps, such interventions can produce success even over a very short time period (2 years) if intensive enough.^{9,10}

What they may be unable to do, however, is reduce weight in those children who are overweight before the intervention is initiated. Such children may require more intensive intervention than is typically offered in community-based prevention efforts.^{9,10} Thus although school-based initiatives may indeed only represent one avenue for intervention, they may well offer an important contribution to the overall attempts to “stem the tide” of the obesity epidemic.

There is no doubt that the outcomes of other school and community-based obesity prevention initiatives currently underway in New Zealand (e.g. *Project Energize* and *OPIC*) will be of immense national and international interest. Obesity is a complex, multifactorial disease¹¹ with much international research attempting to disentangle genetic, environmental, and societal causes. One might argue that scientific endeavour in New Zealand should concentrate not on identifying the causes, but rather on investigating the efficacy of potential interventions. A spectrum of possibilities could be trialled, ranging from legislative measures to the introduction of programmes at national, local, and individual levels.

Some interventions may offer benefits other than obesity prevention and it is always necessary to ensure that any attempted measures are not associated with harm.

Regardless of the debate, what is becoming increasingly obvious is that both a top-down and a bottom-up approach is required if we are ever to “turn the tide” of increasing overweight and obesity. It is clear that the New Zealand Government is willing to try various initiatives, mostly under the umbrella of *Healthy Eating, Healthy Action* (HEHA) and *Mission-On*. Such initiatives are attracting a considerable amount of government money. In addition, research funding is available from the Health Research Council and other funding bodies.

What is considerably less clear is how well this money is being spent, whether programmes are being properly developed including community involvement in design, and perhaps most importantly whether every approach is being effectively evaluated. There is no point spending a single dollar on obesity prevention unless each and every initiative is properly evaluated. We are better to do a few things well than to encourage a flurry of activity without ensuring a full evaluation of the process and outcomes of such initiatives.

Finally, given the multifactorial nature of obesity, it is necessary to remember that a ‘magic bullet’ that will prevent obesity in individuals is unlikely to emerge. If only we could identify a ‘smoking gun’, then the prevention of obesity might be tackled with the similar multifaceted, cohesive, and far-reaching public health campaigns that have been employed for smoking cessation. We should be so lucky!